

STATE OF ALASKA

William A. Egan, Governor



Annual Progress Report for

DISTRIBUTION, ABUNDANCE AND NATURAL
HISTORY OF THE ARCTIC GRAYLING IN
THE TANANA RIVER DRAINAGE

by

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Objectives

1. To develop methods of sampling grayling during the winter months.
2. To find limits of distribution and important areas of concentration in the Chena River and other areas as time permits.
3. To determine major constituents of the grayling diet in the winter.
4. To determine which, if any, physical or chemical factors become limiting in the winter.
5. To study winter interstream migration movements in the Chena River and other areas as sub-Arctic winter conditions permit.
6. To determine the extent of competition such as space, food, size among coexisting fish species.

Severe winter conditions limited work on this job. Five grayling taken by angling and gill net at a station near mile 30 on the Chena River revealed the presence of grayling throughout the winter. The gill net proved more efficient than angling for winter capture of grayling, but it had to be cleaned daily to be effective. Angling with tip-ups baited with salmon eggs, wax worms, and meal worms caught no fish. One grayling was taken on a wax worm baited spinner while jigging. About 50 hook-hours were expended with the tip-ups and jigging, mostly in January.

One female taken on February 11 contained eggs that appeared fully developed and loose in the ovary. A male taken at the same time was nearly ripe.

The dissolved oxygen remained quite high in this area, ranging from 7 ppm on January 12, to 6 ppm on March 23, 1971. There was 10 feet of water under 30 inches of ice in deep holes at this station.

